

- 2 -

Commissioner for Patents

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested.

Claim Rejections -35 U.S.C. § 102

The Office Action rejected claims 1, 9, 22 and 23 under 35 U.S.C. 102 (e) as being anticipated by Chen et al. in United States Patent No. 5,946,316. Applicant respectfully disagrees.

It is well established law that for anticipation under 35 U.S.C. 102, the reference must teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. (MPEP 706.02(a)).

Chen et al. teaches the distribution of multicast information in a communications network formed from a plurality of communications nodes, e.g., ATM switches, enhanced by providing an efficient mechanism for routing a request to join a multicast connection to an originator of the multicast and an efficient mechanism for then connecting the requestor to the multicast connection. In particular, a network node enters a request to join a multicast group by constructing at least one routing tree formed from selected paths to each of a number of other nodes identified in the tree and sending a find message identifying the multicast group to the selected nodes in accordance with the routing tree. In response to receipt of a message identifying the nearest node connected to the multicast group, the requesting node then simply sends a join message to the identified node to join the multicast group (column 1, line 63 - column 2, line 6).

Chen et al. fail to teach or suggest that a network node entering a request to join a multicast group is connected to the ATM network by an access module. Consequently, Chen et al. fail to describe the step of identifying the access module through which the sink node is coupled to the ATM switching network as claimed in step a) of claim 1. Chen et al. further fail to teach "sending a message to

- 3 -

Commissioner for Patents

the access module requesting that the sink node be connected to the multicast tree" as claimed in step b) of claim 1. As noted above, Chen teaches that the network node sends a "find message" identifying the multicast group to a number of other nodes identified in a multicast tree. This teaches directly away from step b) of claim 1.

In addition, step c) of claim 1 claims "grafting a leaf to the multicast tree at the access module to connect the sink node to the multicast tree". As understood by a person skilled in the art, a leaf is grafted only between two nodes in a multicast tree. In contrast, Chen et al. teach in column 2, lines 60-63 that "The nearest node (having the sought-after information) replies with a JOIN-ACK message and all the nodes in the path become a branch of the multicast tree. Consequently, Chen et al. teach directly away from step c) of claim 1.

The Office Action alleges that step d) of claim 1 is inherent in the teachings of claim 1. Applicant respectfully disagrees. Merging multicast packets into an existing service connection for the sink node is neither taught nor suggested by Chen et al. There is nothing inherent in the teachings of Chen et al. that suggests the network structure required to practice the method of claim 1 nor is there any suggestion that an existing service connection for the sink node exists, much less that multicast packets are merged into the existing service connection for the sink node.

Therefore, it is respectfully submitted that the rejection of claim 1 under 35 U.S.C. 102(e) is unfounded and the rejection is traversed.

Regarding claim 9, Applicant respectfully disagrees that Chen et al. constitute an anticipation. First, as noted above, Chen et al. do not teach or suggest the coupling of a sink node to an ATM switching network using an access module. Furthermore, Chen et al. fail to describe "means for identifying an access module through which the sink node is coupled to the ATM network" as claimed in paragraph a) of claim 9, or "means for grafting a leaf to the multicast tree at the identified access module when the identified access module is connected to the multicast tree", as claimed in paragraph c) of claim 9; or means for merging

- 4 -

Commissioner for Patents

multicast products with other IP traffic on an existing service channel for the sink node as claimed in paragraph d) of claim 9.

Therefore, Chen et al. fail to teach or suggest the system of claim 9, and the rejection of claim 9 is traversed.

Regarding claim 22, Applicant respectfully disagrees that Chen et al. constitute an anticipation. As explained above in detail, Chen et al. fail to disclose an access module for an ATM network which comprises means for grafting a leaf to the multicast tree to connect the sink node to the multicast tree. With respect to claim 23, which depends from claim 22, the same argument applies. It is therefore respectfully submitted that claim 22 and dependent claim 23 are not anticipated by Chen et al. and the rejection of claims 22 and 23 is traversed.

The Office Action rejected claims 28-32 under 35 U.S.C. 102(e) as being anticipated by Applicant's admitted prior art at pages 1-3 and in Fig. 1. Applicant respectfully disagrees. In Figs. 1-2 and in the Background of the Invention, Applicant describes the prior art by explaining that the IPS GWY (Internet Protocol service gateway) joins the sink node (and user) to the multicast tree by performing standard IP routing to route the multicast traffic into a virtual channel used to provide DSL service to the end-user's CPE. Claim 28 claims in paragraph a) the setting up of a separate connection between an access module serving a plurality of end-users and a gateway for delivering multicast packets to be transferred across the ATM switching network independently of an end-user virtual channel supported by the access module; and in paragraph b) that the method involves merging the packets with other Internet traffic on the end-user VC at the access module. Since the admitted prior art fails to teach either of these limitations, it is respectfully submitted that claim 28 and its dependent claims 29-32 are novel in view of the admitted prior art.

- 5 -

Commissioner for Patents

Allowable Subject Matter

Applicant gratefully acknowledges that claims 16-21 have been allowed.

Applicant further gratefully acknowledges that claims 2-8, 10-15 and 24-27 would be allowable if written in independent form. However, for reasons set forth above in detail, it is respectfully submitted that the prior art known to the Applicant and cited by the Office Action fails to teach or suggest the invention claimed in claims 1, 9, 22 and 23. It is therefore submitted that each of claims 1-27 pending in this application are in a condition for immediate allowance.

Favorable reconsideration and early issuance of a Notice of Allowability is therefore requested.

Respectfully submitted,

WILHELM, Diana Joan

By 

Max R. Wood

Registration No. 40,388

OGILVY RENAULT

Attorney for Applicant

MRW/MMR/sw

Address:

1600 - 1981 McGill College Avenue
Montreal, Quebec, Canada H3A 2Y3